

the packet stored in the memory includes time-sensitive data.

---

Please add the following new claim.

A<sup>2</sup>  
14. The method of Claim 1, wherein:

said creating of the packet is performed using local audio as a data portion of the packet.

---

#### REMARKS

The claims have been amended to address the Examiner's rejections, and to further highlight and more clearly point out the important features of the invention.

Claims 1 - 11 and 13 have been rejected as being anticipated by Markkula. The rejection states that column 71 lines 61 - 62 of Markkula disclose establishing a time limit to forward a packet, and monitoring a lapse period of time while attempting to forward the packet. Applicant has reviewed this portion of Markkula and notes that this portion of Markkula does not relate to forwarding a packet, but instead relates to waiting for a reply from the destination. In Markkula, the waiting for the predetermined time out period occurs after the cell transmits a message. In claim 1, the elapsed time period is monitored while attempting to forward the packet and before the packet has been forwarded. In Markkula, the cell has already transmitted a message, and it is only after the message has been transmitted that it waits for a predetermined time out. Therefore the waiting in Markkula, and the monitoring of time in the present invention are performed at two different portions during the operation of a network. It is only

the present invention which sets forth monitoring an elapsed period of time while attempting to forward a packet to the network, and therefore claim 1 cannot be anticipated by Markkula.

Applicant notes that the present invention addresses a problem that is different from Markkula. The present invention is worried that packets will not be forwarded or transmitted due to the device forwarding or transmitting the packet not being able to gain access to the network or the packet being involved in a collision while it is being forwarded or transmitted on to the network. With the time sensitive packets of the present invention, it is detrimental for the packet to sit in the memory waiting for a clear period on the network in order to be able to be transmitted onto the network. If the packet sits too long in the memory, it will become stale and useless. The reference of Markkula is not interested in how long a packet sits in memory, but instead is concerned with the packet being successfully received at the destination. The present invention and Markkula therefore address different problems.

The rejection also states that column 71 lines 63 - 64 of Markkula disclose determining whether to cancel an attempt to forward the packet when the lapsed period has expired. Applicant has reviewed this portion of Markkula, and notes that this portion does not describe canceling a packet, but instead describes retransmitting a message. Markkula is therefore not concerned with canceling, but is only concerned with resending. This is the exact opposite of the present invention, and therefore Markkula does not teach nor suggest the feature of determining whether to cancel. This is understandable, since the main purpose in Markkula is to ensure that the message has been properly delivered. The primary objective in the present invention is to have packets timely delivered, and to cancel a packet if it cannot be timely

delivered. Claim 1 therefore further defines over Markkula.

The feature of the contention timer in Markkula has been mentioned with regard to claims 8, 11 and 13, and the disclosure of the contention timer in column 1 has been highlighted in the reference of Markkula received from the U.S. Patent Office. Applicant has reviewed the contention timer of Markkula, and notes that the contention timer also does not anticipate the features of the present invention. The contention timer in Markkula relates to a network that has multiple routes where one route may have a long contention delay and another route may have a shorter delay. The change in delay time varies because of the multiple hops in a route. Markkula is concerned with different routes having different hops and a delay at each hop. The contention timer is used in Markkula at each hop along a multihop route, see Markkula column 71 lines 29 - 41. Markkula uses the contention timer once a packet has been transmitted. The monitoring of elapsed time in the present invention, is with regard to time before the forwarding of the packet in the memory to the network. The elapsed time in the present invention is therefore measured or monitored before the packet has been sent on to the network, and in Markkula, the contention timer is used after the packet is on the network. The contention timer of Markkula therefore cannot anticipate the monitoring step of claim 1.

Claim 1 has been amended to set forth the step of providing a packet forwarding system connected to the network and creating the packet at the packet forwarding system. This further emphasizes that the present invention is concerned with the delay in getting a packet on to the network, instead of delays in receiving an acknowledgment, or delays that are concerned with multiple hop routes. Markkula clearly does not teach nor suggest creating a packet at a packet

forwarding system such as element 10 in the drawings of the present invention, and then monitoring a time that it takes for that packet to be forwarded on to the network such as element 12 in the drawings of the present application. The amendment to claim 1 therefore further causes claim 1 to define over the prior art.

Claims 8, 11 and 13 set forth that the packet includes time sensitive data. The rejection indicates that Markkula discloses time sensitive data because each packet should arrive in order. Applicant notes that a requirement in Markkula for packets to arrive in a specific order, does not indicate that packets contain time sensitive data. The order requirement in Markkula only indicates that the packets are order-sensitive, not time sensitive. If the entire group of packets were delayed in the proper order, the order requirement would still be met, but a time sensitive requirement would not be met. Therefore Markkula does not disclose time sensitive data in a packet.

The present invention has provided a solution for more efficient transmission of time sensitive data, such as voice over a packet network. Time sensitive packets have different requirements and characteristics than typical packets on a computer network, even order sensitive packets. If a time sensitive packet is delayed too long, it becomes useless and there is no need to continue to try to forward the packet. During a telephone call, a delayed packet will cause a slight reduction in the quality of the telephone call, and receiving the packet late will not be able to restore the quality of the call. The present invention reduces network congestion by determining at the device which created the packet whether or not the packet has been delayed too long, and canceling the packet if that occurs. It is only the present invention

which addresses this problem and proposes a method to reduce network congestion by determining which packets have become useless and then canceling those packets. Applicant respectfully requests patent protection for this particular method.

If the Examiner has any comments or suggestions which would further favorable prosecution of this application, the Examiner is invited to contact Applicant's representative by telephone to discuss possible changes.

At this time Applicant respectfully requests reconsideration of this application, and based on the above amendments and remarks, respectfully solicits allowance of this application.

Respectfully submitted  
for Applicant,

By: 

Theobald Dengler  
Registration No. 34,575  
McGLEW AND TUTTLE, P.C.

TD:tf  
63186.2

DATED: June 28, 2000  
SCARBOROUGH STATION  
SCARBOROUGH, NEW YORK 10510-0827  
(914) 941-5600

SHOULD ANY OTHER FEE BE REQUIRED, THE PATENT AND TRADEMARK OFFICE IS HEREBY REQUESTED TO CHARGE SUCH FEE TO OUR DEPOSIT ACCOUNT 13-0410.

I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH  
THE UNITED STATES POSTAL SERVICE AS EXPRESS MAIL IN AN ENVELOPE  
ADDRESSED TO: COMMISSIONER OF PATENTS AND TRADEMARKS,  
WASHINGTON, D.C. 20231, NO.: EL042734104US

McGLEW AND TUTTLE, P.C.  
SCARBOROUGH STATION, SCARBOROUGH, NY 10510-0827

BY:  DATE: June 28, 2000